

CLAIMS

What is claimed is:

1. A method of manufacturing an item of jewelry comprising the steps of:
 - cutting a piece of sheet metal having at least one major planar surface;
 - coating said at least one major planar surface with a metal marking layer;
 - subjecting the coated piece of sheet metal to a laser beam, whereby heat generated by the laser beam causes selected regions of the metal marking layer to form a ceramic design that is adhered to said at least one major planar surface;
 - removing all portions of the marking layer that has not been heated by the laser beam and adhered to said at least one major planar surface;
 - bending the piece of sheet metal to a desired three-dimensional shape in which said at least one major planar surface becomes curvilinear.
2. The method of claim 1, wherein said laser beam is a component of a computer-controlled, raster-scanning infrared-energy-emitting carbon dioxide (CO₂) laser system that scans in a Y-axis direction and moves in an X-axis direction as it directs energy on the metal-marking-spray-covered at least one major planar surface.
3. The method of claim 2, wherein the coated piece of laminar sheet metal is affixed to a positioning table of said raster-scanning infrared-energy-emitting carbon dioxide CO₂ laser system as it is subjected to the laser beam.
4. The method of claim 1, wherein said piece of sheet metal is selected from the group consisting of stainless steel, aluminum, tin, copper, brass, chromed steel, titanium, niobium, tantalum, silver, gold, palladium, platinum, pewter, and alloys thereof.
5. The method of claim 1, wherein the metal marking layer comprises molybdenum trioxide, at least one vanadium compound, mica group minerals, and crystalline silica.

6. The method of claim 1, wherein the metal marking layer is applied to the piece of sheet metal as an ethanol-based solution by spraying.
7. The method of claim 1, wherein the metal marking layer is selected from the group consisting of LMM-6000, RD-6038, RD-6012, and LMM-5001.
8. A method of manufacturing a bracelet, comprising the steps of:
 cutting a laminar metal strip to a desired length and width, said laminar metal strip having first and second parallel, opposed, generally planar major surfaces;
 coating at least said first major surface with a metal marking layer;
 subjecting the coated piece of sheet metal to a laser beam, whereby heat generated by the laser beam causes selected regions of the metal marking layer to form a ceramic design that is adhered to at least said first major surface;
 removing all portions of the marking layer that has not been heated by the laser beam and adhered to at least said first major surface;
 bending the metal strip to form a bracelet having a generally C-shaped side profile, and wherein said first and second major planar surfaces are transformed to curvilinear surfaces.
9. The method of claim 8, wherein said laser beam is a component of a computer-controlled, raster-scanning infrared-energy-emitting carbon dioxide (CO₂) laser system that scans in a Y-axis direction and moves in an X-axis direction as it directs energy on a planar major surface of the metal-marking-spray-covered laminar metal strip.
10. The method of claim 9, wherein the coated piece of laminar sheet metal is affixed to a positioning table of said raster-scanning infrared-energy-emitting carbon dioxide CO₂ laser system as it is subjected to the laser beam.
11. The method of claim 8, wherein said laminar metal strip is selected from the group consisting of stainless steel, aluminum, tin, copper, brass, chromed steel, titanium,

niobium, tantalum, silver, gold, palladium, platinum, pewter, and alloys thereof.

12. The method of claim 8, wherein the metal marking layer comprises molybdenum trioxide, at least one vanadium compound, mica group minerals, and crystalline silica.

13. The method of claim 8, wherein the metal marking layer is applied to the laminar metal strip as an ethanol-based solution by spraying.

14. The method of claim 8, wherein the metal marking layer is selected from the group consisting of LMM-6000, RD-6038, RD-6012, and LMM-5001.

15. An item of jewelry comprising:

 a formed, non-planar laminar metal strip having first and second opposed, generally parallel major surfaces; and

 a laser-formed ceramic design adhered to at least one of said major surfaces.

16. The item of jewelry of claim 15, wherein said non-planar laminar metal strip has been formed as a bracelet having a generally C-shaped side profile.

17. The item of jewelry of claim 15, wherein a laser-formed ceramic design is adhered to both of said generally parallel major surfaces.

18. The item of jewelry of claim 15, wherein said laminar metal strip is selected from the group consisting of stainless steel, aluminum, tin, copper, brass, chromed steel, titanium, niobium, tantalum, silver, gold, palladium, platinum, pewter, and alloys thereof.

19. The method of claim 15, wherein the ceramic design molybdenum trioxide, at least one vanadium compound, mica group minerals, and crystalline silica.

20. The method of claim 15, wherein the ceramic design has a thickness within a range

of about 10 to 30 microns.